



LETTER TO THE EDITOR

Is there a gender shift in HCV infection?

In industrialized countries, 30% of HIV-infected patients and 60–90% of HIV-infected intravenous drug users (IVDU) are co-infected with the hepatitis C virus (HCV).^{1,2} In Western Europe, Portugal has one of the highest incidence rates of HCV-HIV co-infection, as well as a large number of intravenous drug users.³ Factors that have contributed to the spread of these infections are insufficient knowledge of the modes of HIV and HCV transmission as well as ineffective prevention programmes. In our setting, the scarcity of prospective studies on the incidence of HCV-HIV co-infection reinforces the need for cross-sectional studies.

We conducted a study at a large HIV outpatient clinic at a teaching hospital in Lisbon in order to evaluate trends on HCV-HIV co-infection. From 1991 to 2002, a total of 3702 HIV infected patients were seen. All patients were routinely screened for antibodies to HCV, and 920 (24.9%) were found to be positive. Most co-infected patients were male (72.9%), Caucasian (96.0%) and IVDU (91.6%). The median age was 28 years (range 14–74).

The number of HCV-HIV co-infected patients increased until 1996 and was then followed by a steady decrease (see [Figure 1](#)). A similar trend was seen for all HIV-infected patients (data not shown). The decreasing number of co-infected individuals found in our study after 1996 probably reflects the decrease of the number of new infections through the parenteral route, either because of a reduction in injection drug use or an increase in safer injecting practices. In fact, having recognised the impact of drug users on the HIV epidemic, a national syringe exchange programme was implemented in 1993. Its evaluation indicates that the 23 million syringes exchanged from 1993 to 2001 avoided 7000 HIV infections.⁴ Another possibility is that IVDU, showing a poorer adherence to antiretroviral therapy did not benefit from its advantages, mainly from its impact on mortality.

One of the most interesting findings in our study is a clear increase in the female:male ratio over the final few years ([Figure 1](#)). While during the period 1991–1995 a quarter of the patients were female (23 to 32%), this number doubled in more recent years (37 to 57%). As HCV infection can be consid-

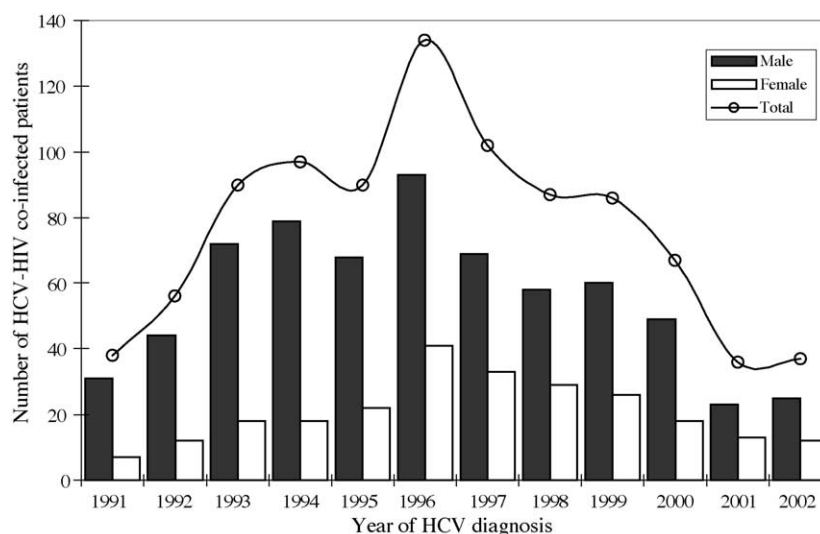


Figure 1 Number of HCV-HIV co-infected patients from 1991–2002. Data show the total number of co-infections and gender distribution.

ered a surrogate marker for the parenteral transmission of HIV infection,⁵ these data could indicate that there is a relative increase in the number of female IVDU in the Lisbon area, probably connected to the sex for drugs trade. If this finding were extrapolated to the country as a whole, it suggests that national public health policy should increase its focus on behavioural interventions to reduce the frequency of HIV and HCV transmission by IVDU, with specific emphasis on the female population.

Conflict of interest: No conflict of interest to declare.

References

1. Bolumar F, Hernandez-Aguado I, Ferrer L, Ruiz I, Avino MJ, Rebagliato M. Prevalence of antibodies to hepatitis C in a population of intravenous drug users in Valencia, Spain, 1990–1992. *Int J Epidemiol* 1996;**25**:204–9.
2. Sherman KE, Rouster SD, Chung RT, Rajicic N. Hepatitis C prevalence among patients infected with human immunodeficiency virus: a cross-sectional analysis of the US Adult AIDS Clinical Trials Group. *Clin Infect Dis* 2002;**34**:831–7.
3. Relatório anual 2002. A situação do país em matéria de drogas e toxicodependências. Instituto da Droga e da Toxicodependência; 2002;27–34. <http://www.drogas.pt>.
4. Félix J (coord. EXIGO Consultores). Estimativa do impacto do programa “diz não a uma seringa em segunda mão” no risco de infecção por VIH/SIDA na população portuguesa de utilizadores de droga injectada. EXIGO Consultores e Comissão Nacional de Luta Contra a SIDA; 2002. p. 65.
5. Lauer GM, Walker BD. Hepatitis C virus infection. *N Engl J Med* 2001;**345**:41–52.

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